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(FILE 'HOME' ENTERED AT 11:18:14 ON 09 SEP 2004)

FILE 'MEDLINE, AGRICOLA, CANCERLIT, SCISEARCH, CAPLUS, MEDICONF' ENTERED AT 11:18:23 ON 09 SEP 2004

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L1         27151 S URINARY INCONTINENCE
L2          1965 S (URETHRA? MUSCLE) OR (SPHINCTER MUSCLE)
L3            56 S L1 (L) L2
L4            43 DUP REM L3 (13 DUPLICATES REMOVED)
L5            27 S L4 AND PY<=1998
L6            27 SORT L5 PY
L7       3691105 S INJECT? OR INTRODUC? OR IMPLANT? OR TRANSPLANT?
L8             7 S L1 (L) L2 (L) L7
L9             5 DUP REM L8 (2 DUPLICATES REMOVED)
L10            0 S L4 AND (GENE THERAPY)
L11           38 S L1 AND (GENE THERAPY)
L12           27 DUP REM L11 (11 DUPLICATES REMOVED)
L13            2 S L12 AND PY<=1998
                 E COLEMAN MICHAEL?/AU
                 E CHANCELLOR MICHAEL?/AU
L14           87 S E2
L15           13 S L1 AND L14
L16           11 DUP REM L15 (2 DUPLICATES REMOVED)
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L16 ANSWER 1 OF 11 MEDLINE on STN
AN 2004179241 MEDLINE
TI Intraurethral muscle-derived cell injections increase leak point pressure in a rat model of intrinsic sphincter deficiency.
SO Urology, (2004 Apr) 63 (4) 780-5.
Journal code: 0366151. ISSN: 1527-9995.
AU Chermansky Christopher J; Tarin Tatum; Kwon Dong-Duek; Jankowski Ronald J; Cannon Tracy W; de Groat William C; Huard Johnny; **Chancellor Michael B**
AB OBJECTIVES: To determine whether allogenic muscle-derived cells (MDCs) could restore sphincter function in rats with intrinsic sphincter deficiency (ISD). ISD denotes a malfunction of the urethral sphincter. METHODS: ISD was produced in 25 adult female Sprague-Dawley rats by cauterizing tissues lateral to the mid-urethra. One week after cauterization, 1.5 x 10(6) MDCs, genetically engineered for beta-galactosidase expression, was injected into the mid-urethra in 16 rats. Another 9 rats were injected with Hanks' balanced salt solution after cauterization. As a control, 9 normal rats underwent a sham operation. Sphincter function was studied using the vertical tilt table/intravesical pressure clamp technique to measure leak point pressures (LPPs). The fate of the MDCs was assessed using LacZ staining. RESULTS: The injection of MDCs increased the LPP without affecting bladder function. The mean LPP of the control rats 2, 4, and 6 weeks after the sham operation was 49.8 +/- 1.3, 51.2 +/- 1.5, and 51.6 +/- 2.0 cm H2O, respectively. The mean LPP of the rats 2, 4, and 6 weeks after cauterization and Hanks' balanced salt solution injection was 17.2 +/- 1.4, 26.9 +/- 1.9, and 25.5 +/- 1.3 cm H2O, respectively. The mean LPP of the rats 2, 4, and 6 weeks after cauterization and MDC injection was 38.2 +/- 2.2, 43.1 +/- 2.6, and 51.5 +/- 0.9 cm H2O, respectively. LacZ staining confirmed that MDC had integrated within the striated muscle layer of the cauterized urethra. CONCLUSIONS: The injection of intraurethral MDCs improved sphincter function in rats with ISD and may provide an attractive alternative to current treatments.

L16 ANSWER 3 OF 11 MEDLINE on STN
AN 2003546645 MEDLINE
TI Improved sphincter contractility after allogenic muscle-derived progenitor cell injection into the denervated rat urethra.
SO Urology, (2003 Nov) 62 (5) 958-63.
Journal code: 0366151. ISSN: 1527-9995.
AU Cannon Tracy W; Lee Ji Youl; Somogyi George; Pruchnic Ryan; Smith Christopher P; Huard Johnny; **Chancellor Michael B**

AB OBJECTIVES: To study the physiologic outcome of allogenic transplant of muscle-derived progenitor cells (MDPCs) in the denervated female rat urethra. METHODS: MDPCs were isolated from muscle biopsies of normal 6-week-old Sprague-Dawley rats and purified using the preplate technique. Sciatic nerve-transected rats were used as a model of stress **urinary incontinence**. The experimental group was divided into three subgroups: control, denervated plus 20 microL saline injection, and denervated plus allogenic MDPCs (1 to 1.5 x 10(6) cells) injection. Two weeks after injection, urethral muscle strips were prepared and underwent electrical field stimulation. The pharmacologic effects of d-tubocurare, phentolamine, and tetrodotoxin on the urethral strips were assessed by contractions induced by electrical field stimulation. The urethral tissues also underwent immunohistochemical staining for fast myosin heavy chain and CD4-activated lymphocytes. RESULTS: Urethral denervation resulted in a significant decrease of the maximal fast-twitch muscle contraction amplitude to only 8.77% of the normal urethra and partial impairment of smooth muscle contractility. Injection of MDPCs into the denervated sphincter significantly improved the fast-twitch muscle contraction amplitude to 87.02% of normal animals. Immunohistochemistry revealed a large amount of new skeletal muscle fiber formation at the injection site of the urethra with minimal inflammation. CD4 staining showed minimal lymphocyte infiltration around the MDPC injection sites. CONCLUSIONS: Urethral denervation resulted in near-total abolishment of the skeletal muscle and partial impairment of smooth muscle contractility. Allogenic MDPCs survived 2 weeks in sciatic nerve-transected urethra with minimal inflammation. This is the first report of the restoration of deficient urethral sphincter function through muscle-derived progenitor cell tissue engineering. MDPC-mediated cellular urethral myoplasty warrants additional investigation as a new method to treat stress **urinary incontinence**.

L16 ANSWER 7 OF 11 MEDLINE on STN DUPLICATE 2
AN 2002636392 MEDLINE
TI Current and future pharmacological treatment for overactive bladder.
SO Journal of urology, (2002 Nov) 168 (5) 1897-913. Ref: 176
Journal code: 0376374. ISSN: 0022-5347.
AU Yoshimura Naoki; **Chancellor Michael B**
AB PURPOSE: **Urinary incontinence** and overactive bladder are important and common conditions that have received little general medical attention. We reviewed the magnitude and impact of these conditions, and discuss pharmacotherapy as well as new drugs under investigation. MATERIALS AND METHODS: The main emphasis of this review is pharmacological therapy for the bladder. We discuss currently available agents, drugs under development and pharmacological targets that would be suitable targets for treating overactive bladder. Drugs such as duloxetine that target not bladder smooth muscle, but rather central nervous system control of the micturition reflex are undergoing clinical trials. We also discuss intravesical therapy and alternative drug delivery methods, such as intravesical capsaicin and botulinum toxin, with special emphasis on approaches to modulate bladder afferent nerve function for preventing overactive bladder. RESULTS: There are many advantages to advanced drug delivery systems, including long-term therapeutic efficacy, decreased side effects and improved patient compliance. Future speculation such as gene therapy holds great promise for overactive bladder because it is possible to access all genitourinary organs via endoscopy and other minimally invasive techniques that are ideally suited for gene therapy. CONCLUSIONS: Traditional anticholinergic therapies are limited in their effectiveness. There is great hope for future research regarding voiding dysfunction and **urinary incontinence** through a focus on afferent nerve intervention for preventing overactive bladder.

L16 ANSWER 8 OF 11 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2001:780710 CAPLUS
DN 135:335112
TI Soft tissue and bone augmentation and bulking utilizing muscle-derived progenitor cells, compositions and treatments thereof
SO PCT Int. Appl., 92 pp.
CODEN: PIXXD2

IN **Chancellor, Michael B.**; Huard, Johnny; Capelli, Christopher C.; Qu, Zhuqing

AB The present invention provides muscle-derived progenitor cells that show long-term survival following transplantation into body tissues and which can augment soft tissue following introduction (e.g. via injection, transplantation, or implantation) into a site of soft tissue. Also provided are methods of isolating muscle-derived progenitor cells, and methods of genetically modifying the cells for gene transfer therapy. The invention further provides methods of using compns. comprising muscle-derived progenitor cells for the augmentation and bulking of mammalian, including human, soft tissues in the treatment of various cosmetic or functional conditions, including malformation, injury, weakness, disease, or dysfunction. In particular, the present invention provides treatments and amelioration for dermatol. conditions, gastroesophageal reflux, vesico-ureteral reflux, **urinary incontinence**, fecal incontinence, heart failure, and myocardial infarction.

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001078754	A2	20011025	WO 2001-US12084	20010412
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	EP 1272204	A2	20030108	EP 2001-924998	20010412
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	JP 2003531125	T2	20031021	JP 2001-576054	20010412

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L13 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1998:542993 CAPLUS

DN 129:157327

TI Treatment for **urinary incontinence** using **gene therapy** techniques

SO PCT Int. Appl., 118 pp.
CODEN: PIXXD2

IN Coleman, Michael

AB The invention is directed in part towards methods of treating **urinary incontinence** using **gene therapy** techniques. The methods provide for the delivery and expression of growth factors or neurotrophic factors in mammalian tissues.

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9833529	A1	19980806	WO 1998-US2051	19980204 <--
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	AU 9861427	A1	19980825	AU 1998-61427	19980204 <--
	AU 739224	B2	20011004		
	EP 981378	A1	20000301	EP 1998-906110	19980204
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	JP 2001511154	T2	20010807	JP 1998-533206	19980204

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L Number	Hits	Search Text	DB	Time stamp
3	601	urinary NEAR incontinence NEAR stress	USPAT; US-PGPUB; EPO; JPO; DERWENT; USOCR	2004/09/09 11:14
4	482	(urinary NEAR incontinence NEAR stress) and (urethra OR sphincter)	USPAT; US-PGPUB; EPO; JPO; DERWENT; USOCR	2004/09/09 11:03
5	7	((urinary NEAR incontinence NEAR stress) and (urethra OR sphincter)) and myoblast$1	USPAT; US-PGPUB; EPO; JPO; DERWENT; USOCR	2004/09/09 11:13
6	383	((urinary NEAR incontinence NEAR stress) and (urethra OR sphincter)) and (muscle OR myoblast$1)	USPAT; US-PGPUB; EPO; JPO; DERWENT; USOCR	2004/09/09 11:05
7	279	(((urinary NEAR incontinence NEAR stress) and (urethra OR sphincter)) and (muscle OR myoblast$1)) and (transplant$4 OR inject$4 or implant$4)	USPAT; US-PGPUB; EPO; JPO; DERWENT; USOCR	2004/09/09 11:06
8	46	((((urinary NEAR incontinence NEAR stress) and (urethra OR sphincter)) and (muscle OR myoblast$1)) and (transplant$4 OR inject$4 or implant$4)) and 424/$$.ccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT; USOCR	2004/09/09 11:07
10	8	(stress NEAR urinary NEAR incontinence) and myoblast	USPAT; US-PGPUB; EPO; JPO; DERWENT; USOCR	2004/09/09 11:12
11	1072	urinary NEAR incontinence.clm.	USPAT; US-PGPUB; EPO; JPO; DERWENT; USOCR	2004/09/09 11:13
13	2	(urinary NEAR incontinence.clm.) and myoblast$1.clm.	USPAT; US-PGPUB; EPO; JPO; DERWENT; USOCR	2004/09/09 11:13
14	16	(urinary NEAR incontinence NEAR stress) and (gene ADJ therapy)	USPAT; US-PGPUB; EPO; JPO; DERWENT; USOCR	2004/09/09 11:15
15	7	CHANCELLOR NEAR MICHAEL	USPAT; US-PGPUB; EPO; JPO; DERWENT; USOCR	2004/09/09 11:16
-	7	(US-5763416-$ or US-5942496-$ or US-6239117-$ or US-6271211-$).did. or (WO-9833529-$).did. or (US-6239117-$ or WO-200037124-$ or US-20010041355-$).did.	USPAT; EPO; DERWENT	2002/05/15 17:14
-	10	(US-5942496-$ or US-5763416-$ or US-6271211-$ or US-6239117-$ or US-5068224-$ or US-5444047-$).did. or (WO-9833529-$ or WO-9824922-$).did. or (US-20010041355-$ or US-6239117-$ or WO-200037124-$).did.	USPAT; EPO; DERWENT	2002/05/16 14:20
-	157	(IGF-I or IGF-II or (insulin ADJ like)) and (URETHERA$1 OR SPHINCTER OR DETRUSOR OR PELVIC)	USPAT; US-PGPUB; EPO; JPO; DERWENT; USOCR	2002/05/16 14:23

-	33	((IGF-I or IGF-II or (insulin ADJ like)) and (URETHERA$1 OR SPHINCTER OR DETRUSOR OR PELVIC)) and ((atrophy or atrophied or dysfunction) SAME (muscle or muscular))	USPAT; US-PGPUB; EPO; JPO; DERWENT; USOCR	2002/05/16 14:26
-	3691	urinary ADJ incontinence	USPAT; US-PGPUB; EPO; JPO; DERWENT; USOCR	2004/01/22 12:23
-	2	(urinary ADJ incontinence) and (inducible ADJ nitric ADJ oxide)	USPAT; US-PGPUB; EPO; JPO; DERWENT; USOCR	2002/10/09 18:09
-	4229	urinary WITH incontinence	USPAT; US-PGPUB; EPO; JPO; DERWENT; USOCR	2002/10/09 17:59
-	6	(urinary WITH incontinence) and (inducible ADJ nitric ADJ oxide)	USPAT; US-PGPUB; EPO; JPO; DERWENT; USOCR	2002/10/09 17:59
-	507	inducible ADJ nitric ADJ oxide	USPAT; US-PGPUB; EPO; JPO; DERWENT; USOCR	2002/10/09 18:09
-	75	(inducible ADJ nitric ADJ oxide) and (gene ADJ therapy)	USPAT; US-PGPUB; EPO; JPO; DERWENT; USOCR	2002/10/09 18:10
-	16	(US-5942496-$ or US-5763416-$ or US-5466676-$ or US-6271211-$ or US-5068224-$ or US-5444047-$ or US-5739113-$ or US-6447768-$ or US-6133281-$).did. or (WO-9833529-$ or WO-9824922-$ or WO-9956785-$ or WO-9600006-$).did. or (US-20010041355-$ or US-6239117-$ or WO-200037124-$ or US-5658565-$).did.	USPAT; EPO; DERWENT	2002/10/09 18:15
-	5	((US-5942496-$ or US-5763416-$ or US-5466676-$ or US-6271211-$ or US-5068224-$ or US-5444047-$ or US-5739113-$ or US-6447768-$ or US-6133281-$).did. or (WO-9833529-$ or WO-9824922-$ or WO-9956785-$ or WO-9600006-$).did. or (US-20010041355-$ or US-6239117-$ or WO-200037124-$ or US-5658565-$).did.) and (inducible ADJ nitric ADJ oxide)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2002/10/09 18:16
-	443	inducible ADJ nitric ADJ oxide ADJ synthase	USPAT; US-PGPUB; EPO; JPO; DERWENT; USOCR	2002/10/17 18:49
-	7	(inducible ADJ nitric ADJ oxide ADJ synthase) SAME (gene ADJ therapy)	USPAT; US-PGPUB; EPO; JPO; DERWENT; USOCR	2002/10/17 18:56
-	26	(inducible ADJ nitric ADJ oxide ADJ synthase) SAME (muscle ADJ cell)	USPAT; US-PGPUB; EPO; JPO; DERWENT; USOCR	2002/10/17 19:00

-	1	(inducible ADJ nitric ADJ oxide ADJ synthase) SAME (myoblast)	USPAT; US-PGPUB; EPO; JPO; DERWENT; USOCR	2002/10/17 19:03
-	636	stress NEAR urinary NEAR incontinence	USPAT; US-PGPUB; EPO; JPO; DERWENT; USOCR	2004/01/22 13:06
-	3	(stress NEAR urinary NEAR incontinence) and muscle-derived	USPAT; US-PGPUB; EPO; JPO; DERWENT; USOCR	2004/01/22 13:06
-	12	(stress NEAR urinary NEAR incontinence) and (gene NEAR therapy)	USPAT; US-PGPUB; EPO; JPO; DERWENT; USOCR	2004/01/22 13:07
-	28	(US-6271211-$ or US-5942496-$ or US-5763416-$ or US-5068224-$ or US-5444047-$ or US-5739113-$ or US-5466676-$ or US-6133281-$ or US-6447768-$ or US-5658565-$ or US-5594032-$ or US-5882908-$ or US-5468630-$).did. or (US-20020155096-$ or US-20030104455-$ or US-20030148394-$).did. or (WO-9833529-$ or WO-9824922-$ or WO-9956785-$ or WO-9600006-$).did. or (US-6239117-$ or US-20010041355-$ or WO-200037124-$ or WO-200078946-$ or US-5594032-$ or WO-9956785-$ or WO-2003061573-$ or WO-2003039475-$).did.	USPAT; US-PGPUB; EPO; DERWENT	2004/01/22 13:08